

The Path Analysis of Modern Educational Technology Promoting Education Development under the Background of Big Data

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Abstract: With the widespread use of Internet technology, big data and big data technologies are also rapidly developing and applied. It has become an important factor in promoting education reform and development. Today's big data and big data technology has become an important part of modern educational technology, and it is a new achievement in the development of modern educational technology. Modern educational technology in the context of big data has therefore been given a new mission, which is very important to promote the development of education. Significance. This paper analyzes the problems existing in the application of modern educational technology to promote the development of education in the context of big data, and explores the path of modern educational technology to promote education in the context of big data.

1. Introduction

Today, the rapid development of digital technology has promoted the widespread use of Internet technology in all walks of life. Therefore, modern educational technology based on digital technology and Internet technology has also been well developed and improved. The deepening implementation of the "Internet + Education" concept is an important symbol of the development of modern educational technology and an important application of contemporary information technology in the development of teaching. Through the application of modern educational technology, teachers and students can understand the characteristics of modern educational technology in the era of big data, and through the learning and mastery of modern educational technology, more teachers and students can enjoy the progress of science and technology and education. Results. Combined with the characteristics of modern educational technology, students are gradually developed into a good network learning ability, in order to expand the new space for students to learn, while improving the teaching level of teachers, and constantly expand the communication channels between teachers and students. continuously improve the efficiency and quality of education through modern educational technology.

2. Big data overview

2.1 The concept of big data

The so-called big data is a large number of information data systems formed on the basis of information network technology through effective collection, induction and processing of information resources through diversified channels and channels. With the development of society, big data has undergone fundamental changes compared with traditional data, mainly in terms of quantity, structure, mode, and mode. The amount of data stored has a large number of features, and big data has changed the traditional structure. The data storage space, on the basis of the increasing amount of data, the data model is also constantly evolving, using data as a new type of resource, and its access channels have greater flexibility.

2.2 Current characteristics of educational big data

Big data has the characteristics of scale, high speed and diversity. The huge amount of data, the variety of data types, the low value density and the fast processing speed are the main characteristics of big data. Therefore, big data technology has become one of the representative technologies in the information field. Big data has not only changed people's lives and working methods, but also brought a great leap to various industries. It is precisely because big data technology is the collection, mining and analysis of information and data, thus promoting the further development of the industry and promoting the change of education and teaching methods. The emergence of the era of big data will change people's understanding of data, not only reflects the great significance of the existence of data, but also allows people to find the hidden value behind big data through the processing of data (Xingbo, Yang, 2016). Especially for the modern education industry, it is a great opportunity to promote the development of education. The ability of big data enables schools to access more teaching resources and provide more support and assistance for teacher teaching and student learning. The most authentic and reliable data that exists in daily teaching, in addition to reflecting the macroscopic functions of big data, can also perform microscopic data analysis as much as possible, using big data technology to integrate students and schools. The development of the situation is recorded and statistical data, and then through the integration of the data to obtain important information to promote the progress and development of school teaching. This undoubtedly provides an excellent reference for the development of modern education from both the overall and the details. The educational advantage in the era of big data is very obvious.

3. Overview of modern educational echnology

3.1 Modern educational technology concept

Modern educational technology is the theoretical practice of optimizing teaching links and achievements through the use of modern educational ideas, theories, and the scientific application of various information technologies in the processes of teaching, learning, development, and management. Starting from the whole, focusing on the flexible use of systematic scientific methods, and the scientific allocation of existing educational resources are the core content of educational technology.

3.2 Characteristics of modern educational technology

Modern educational technology is not only the application of science, technology and means, but also the scientific reference of advanced theories and methods. The use of modern educational technology is not only to break through the limitations of traditional classroom teaching, but more importantly, to truly integrate technological innovation into all aspects of teaching (Bingkun, Wang, 2014).

The application of modern educational technology in the context of big data is not only to disseminate information at a high speed, but more importantly to promote the continuous improvement of the quality of education, to provide a strong technical guarantee for the scientific development of educational activities, and to break through the limitations of traditional educational technology. To do this, it must attach importance to and strengthen the scientific application of modern educational technology in education. In practical application, it can not only fully adapt to the requirements of educational innovation, but also optimize educational methods and education systems to improve the quality and effectiveness of teaching and learning(Gensheng, Xing, 2018).

4. Challenges of modern education in the era of big data

In today's era of rapid development of big data, the teaching philosophy, talent training mode, teaching content and education management mechanism of modern education are undergoing corresponding profound changes. There are some inconsistencies in the current modern education

system and the era of big data. The development of big data poses a higher challenge to modern education, making educators more aware of the shortcomings of education and teaching itself under the rapid development of new technologies, and transforming and reforming them, thereby playing the role of new technology in promoting education.

4.1 Modern education concept lags behind the requirements of the big data era

In recent years, with the continuous development of education, both in basic education and higher education, their scale and level are constantly improving. The expansion of this scale requires that schools at all levels and schools should adjust their student training programs and teaching models, and strengthen the construction of information and data in all aspects to ensure the improvement of the education system and adapt to the educational development of the era of big data. Claim. However, due to the slower update of the concept of modern education system in China, it is lagging behind the requirements of the times in the cultivation of students' information ability. Many professional curriculum systems cannot keep up with the needs of the society. The role of modern educational technology in assisting education and teaching has not been fully exerted. The relatively single channel of learning leads to the students' application ability and innovation ability is not too strong; the speed of information and big data construction is slow, the participation of teachers and students is not enough, resulting in low application of information and data. The data does not guarantee the prediction and feedback of teaching quality and teaching facilities construction.

4.2 Based on the background of big data, the development of modern education is relatively simple

The main body of the current education development system in China is government-based, the dominant position of the school in development is relatively weak, and the participation of students and parents is not high. This situation is difficult to adapt to the development requirements of the era of big data. It is not conducive to the flexible application of modern educational technology in education and teaching under the background of big data.

4.3 The integration of modern education and education technology and curriculum is not enough under the background of big data

Generally speaking, each course is different, so the choice of teaching methods for different courses should also be different. However, in the actual teaching process, due to the lack of careful analysis of the selection of certain educational technology methods, the selection of educational technology methods and teaching content are not consistent, which affects the effect of teaching. This shows that the organic integration of modern educational technology and curriculum teaching is not scientific enough..

4.4 Modern educational technology system has not been fully established

The advent of the era of big data has enriched the way of modern educational technology, providing a possibility for modern educational technology systems and comprehensive improvement. Constrained by various educational and teaching conditions, the improvement and improvement of the modern educational technology system can not keep up with the rapid development of information technology. This phenomenon still has obvious differences between urban and rural materials. Taking rural schools as an example, the basic school data and the development of school dynamics are basically under construction. The imperfect modern education technology system in rural schools directly affects the relatively low quality of teaching. Due to systematic financial statistics, hardware facilities construction, students' basic information and other relevant influencing factors, a complete data system has not been formed, resulting in the inability to obtain accurate information on educational information, thus affecting the improvement of rural school teaching quality.

It can be seen that only a well-established data information system can comprehensively and comprehensively evaluate the teaching situation of modern education, improve the teaching

conditions in a targeted manner, make up for the shortcomings in teaching, and realize the modern education in the era of big data in schools. The organic combination of technology and teaching promotes the improvement of teaching quality.

4.5 Modern education quality standards need to be improved

At present, the quality assessment standards for modern education in China are relatively simple. The quality inspection standards of modern education and the integration of big data are not close enough, and the test standards with strong data and scientificity have not yet been fully formed. Only in the case of real and objective big data, the standards obtained by comprehensive analysis can meet the requirements of teaching quality evaluation, and can better provide a basis for the quality inspection of modern education. At the same time, it is necessary to improve the modern education system in the big data environment, so that the evaluation standard of modern education quality keeps pace with the application of information technology in education(Kaicheng, Yang and Yi, Xu, 2016).

5. Modern education technology promotes the reconstruction of education quality system and organizational structure under the big data environment

In the context of the era of big data, the level of modern educational technology has been greatly developed, and it has had a positive impact on the promotion of basic education and higher education levels. Especially in the teaching mode and classroom teaching form. A more convenient, more intuitive and more flexible way of education is effectively stimulating students' interest in learning. It is changing the form of teacher-led teaching. Teachers and students are using modern educational technology to jointly create innovative classroom teaching models. Modern educational technology is serving. In the modern educational process. In the context of big data, modern education is faced with both challenges and opportunities. Teachers and students should take the initiative to adapt and actively explore the path and method of modern educational technology to promote education in the context of big data.

5.1 Transforming from "digital" to "data"

Digitization has become a normal state of current social development, but digitalization is not dataization. Dataization is an upgrade of digital development. It is also a product of informationization. In the development of information technology, more emphasis is placed on the function of data and the use of data. Transforming digitalization into dataization to improve the efficiency and quality of modern educational technology(Xingbo, Yang, 2016).

With the continuous development and progress of information technology, the modern educational technology form has begun to produce a qualitative leap. The impact of big data on education is becoming more and more obvious. The education industry in many developed countries has reached a certain level of application of big data. Through the deep exploration of education data, the teaching quality and management level have been raised to a new level. China's current application of big data in modern education is accelerating.

In the era of big data, Chinese education is not only the change of teaching methods and teaching quality, but more importantly, it helps educators to change their teaching concepts, guided by advanced educational concepts, and promotes modernization with scientific means and means. The new reform of education, therefore, should deepen the idea of "data", pay attention to the construction of educational digital hardware and software, build a good data-based learning environment for students, and let teachers and students explore with modern information technology in the context of data age. The law of education. Students can use the data resources in the whole process of learning. Through the teaching management, comprehensive statistical analysis and analysis of the teaching data results may be carried out, so as to promote the improvement of the teaching quality and the construction of the teaching system. Big data technology has made it possible for the school to be scientific and scientific, and it also provides a new method for the application of modern educational technology in teaching. Teachers should be

good at using the data management platform and methods in the era of big data, continuously strengthen the use of modern educational technology to carry out the teaching system construction, improve the teaching level, and innovate the teaching mode to adapt to the organic integration of modern educational technology and teaching process under the background of big data.

5.2 Reconstruction of Modern Educational Technology to Promote Educational Quality System and Organizational Structure in Big Data Environment

The main body of education today should include government departments, schools, students, parents and many other aspects. To ensure the quality of modern educational technology in the era of big data, the construction of quality systems needs to be based on big data. Make full use of the Internet and other means to form an information exchange security system with distinctive characteristics of the times and high technology(Ran, Chen and Cheng, Yang, 2014).

5.2.1 Establish a corresponding security system

At present, the level of modern educational technology is developing rapidly. In order to continuously improve the quality of teaching in schools, it is necessary to establish and improve the teaching system of modern education and education technology. Schools must monitor, manage, and optimize the educational process, and regularly assess and adjust talent training objectives.

5.2.2 Establish an evaluation mechanism for multi-participation

Schools should evaluate the teaching activities of teachers and students, and promote the improvement of modern educational technology and teaching quality. Encouraging parents to evaluate school teaching is an important basis for promoting school quality improvement; social employers based on the performance of graduates Provide relevant data information and suggestions for the school to assist the school in the adjustment and improvement of the talent development plan.

5.2.3 Play the role of government regulation and guidance

Relevant government departments should carry out timely macroeconomic regulation and control of education. And from the height of the policy, the long-term planning of the application of modern educational technology in schools, and the investment in the construction of modern educational technology facilities. Using the big data platform to establish a modern education technology quality system, and based on the analysis and comparison of the traditional teaching methods and the use of modern educational technology teaching methods, to establish a scientific and objective teaching quality management system, strengthen big data Under the background, the construction of modern educational technology application system, giving full play to government functions and promoting the widespread use of modern educational technology in teaching.

5.3 Improve the modern educational technology information system that meets the requirements of big data

The perfect combination of big data and the Internet and cloud computing technology is rapidly changing the way education is done. China's development and application of big data technology is improving. The "Internet +" action is a brand-new educational model based on the era of big data. This model has a consensus on the promotion of education. In the context of the era of big data, the "Internet + education" model is the enrichment and development of modern educational technology. In view of the fact that the information system of China's modern education system is still not perfect, with the help of big data and Internet technology, schools should actively build campus networks, give full play to the role of big data education resources public service platform and education management public service platform, and combine the Internet with modern education technology to actively open up new ones. Informational education methods to improve the level of educational information. By constructing a modern educational technology informatization system, it will greatly promote the development and improvement of modern educational informatization, help to improve China's entire modern educational technology informatization system, to expand

the scope and level of use of modern educational technology in the context of big data, and improve teaching efficiency and quality.

5.4 Using new educational technology methods to promote the scientific development of education

In the context of big data, modern educational technology urgently needs to improve its scientific level. This is not only the need of the development of the current era, but also the inevitable requirement for the continuous improvement and new development of contemporary education. The scientific application of modern educational technology is also an inevitable requirement of educational development. Therefore, in the process of perfecting the application of modern educational technology, it is necessary to take the scientific concept as the guidance, the high-tech education means as the assistant, and the teaching process to be perfectly combined. Based on this, various new educational technology methods represented by MOOC (massive open online courses) came into being. MOOC, an online course learning method implemented in conjunction with the Internet, has become a focus of modern teaching development with its diversified tool resources, easy-to-use course content, broad audience scope, and strong autonomy. Focus. Combine educational technologies such as MOOC to promote the existing curriculum syllabus and talent training objectives, select suitable training concepts, training objectives and educational resources appropriate to them, and use advanced educational technology and educational ideas to create scientific education. The system guarantees the richness of teaching development.

Scientific training for teaching staff enables teaching staff to have an international mindset and use international teaching methods to carry out teaching activities to ensure the integration of modern educational technology and international education methods.

In addition, combined with more Internet-based teaching methods, these teaching methods are internalized into modern educational technology methods, and guide modern educational technology to the deep development of educational reform, relying on new modern educational technology to construct scientific teaching methods, let Modern educational technology assists teaching in a new form, making the educational process more scientific (Yan, Cheng, et al., 2014). At the same time, continuously deepen the application of "Internet + education" in education and teaching.

6. Conclusions

In summary, big data is the enrichment and development of modern educational technology, and modern educational technology is more diverse today. The use of advanced modern educational technology to carry out teaching activities in education and teaching activities has become an inevitable requirement. The arrival of the era of big data has brought more challenges to the application of modern educational technology. Therefore, in the context of the era of big data, deepening the reform of the education system, actively implement education reform measures, reconstruct the education and teaching process, and constantly improve the educational methods that meet the requirements of big data, and provide a good environment for the application of new modern educational technologies. The role of modern educational technology to improve the efficiency and effectiveness of education and teaching.

7. Discussion

The application of big data is more and more extensive. How to use the modern educational technology in the big data environment to optimize the teaching process and improve the quality of teaching still needs further research. In addition to the macro aspect, it is necessary to study the micro-process, especially the research on the specific application mode of modern educational technology in the big data environment. It is also the main direction for further research in the future.

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